STIC SEARCH
6/7/06

```
=> b reg
FILE 'REGISTRY' ENTERED AT 10:44:55 ON 07 JUN 2006
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STRUCTURE FILE UPDATES:     6 JUN 2006  HIGHEST RN 887000-62-6
DICTIONARY FILE UPDATES:    6 JUN 2006  HIGHEST RN 887000-62-6

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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  conducting SmartSELECT searches.

**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information.  *
*                                                                    *
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Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> d que sta l9
L7                STR
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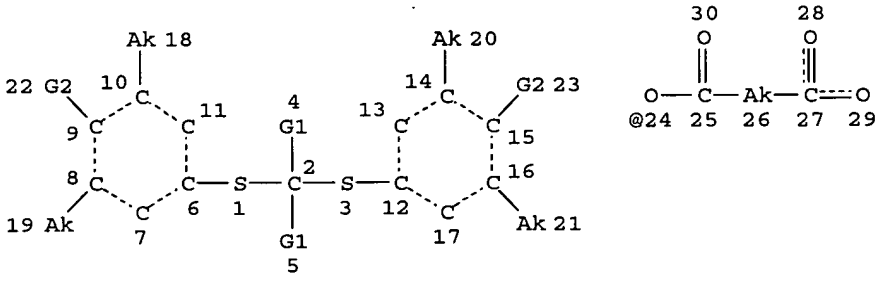


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DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE
L9            88 SEA FILE=REGISTRY SSS FUL L7
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SEARCH TIME: 00.00.01

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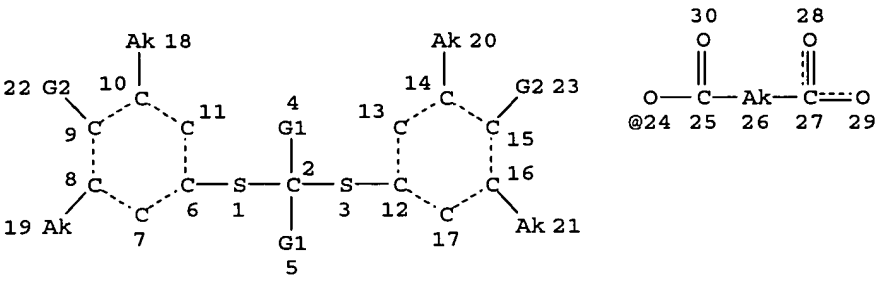

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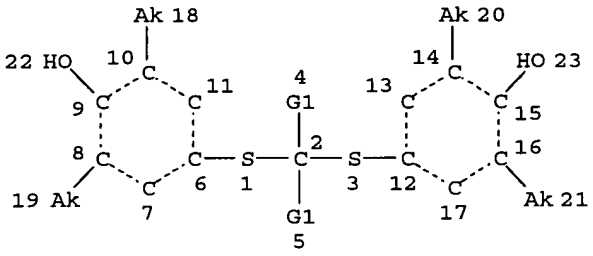

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GRAPH ATTRIBUTES:
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STEREO ATTRIBUTES: NONE
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100.0% PROCESSED 88 ITERATIONS 59 ANSWERS
SEARCH TIME: 00.00.01

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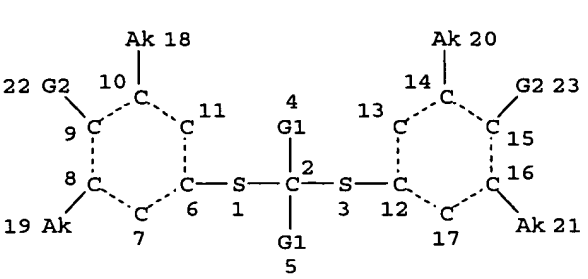

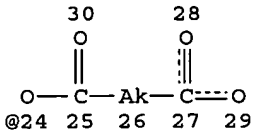

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GRAPH ATTRIBUTES:
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STEREO ATTRIBUTES: NONE
L9 88 SEA FILE=REGISTRY SSS FUL L7
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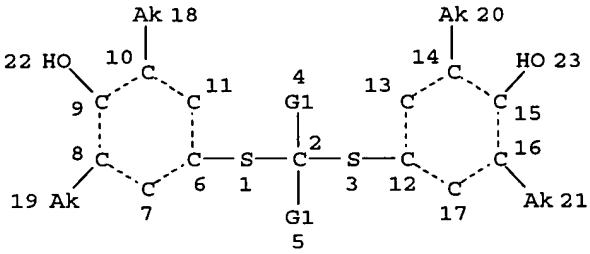

VAR G1=AK/CY
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
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L13 29 SEA FILE=REGISTRY ABB=ON PLU=ON L9 NOT L12

=> b hcap
FILE 'HCAPLUS' ENTERED AT 10:45:10 ON 07 JUN 2006

FILE COVERS 1907 - 7 Jun 2006 VOL 144 ISS 24
FILE LAST UPDATED: 6 Jun 2006 (20060606/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs hitstr retable l34 tot

L34 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1170583 HCAPLUS
DN 143:440071
TI Process for preparing esters of probucol and derivatives thereof using acid anhydrides in the presence of DBU or DBN.
IN Weingarten, David M.
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2005102323	A2	20051103	2005WO-US13394	20050420
	WO2005102323	A3	20051215		
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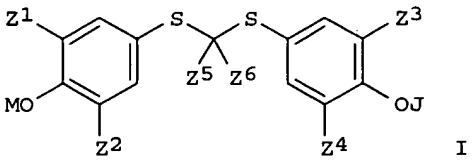
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US2005267187	A1	20051201	2005US-0111194	20050420
PRAI	2004US-564267P	P	20040420		

OS MARPAT 143:440071
GI



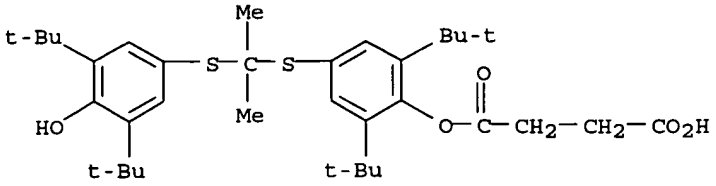
I

AB Title compds. [I; Z1-Z4 = H, (substituted) alkyl; Z5, Z6 = (substituted) alkyl, alkenyl, aryl; Z5Z6 = atoms to form a carbocyclic ring; M = H, (substituted) (unsatd.) acyl; J = (substituted) (unsatd.) acyl], were prepared by reaction of I (M, J = H; other variables as above) with (substituted) (unsatd.) acyl halides, carboxylic acid anhydrides, or carboxylic acid esters in the presence of R1R3NCY(:NR4) (Y = R2, NR2R5; R1-R5 = (substituted) alkyl, alkenyl; R1R2, R3R4 = atoms to form rings). Thus, probucol, succinic anhydride, and DBU were stirred in MeCN at 50° for 1 h to give a mixture comprising probucol monosuccinate 49

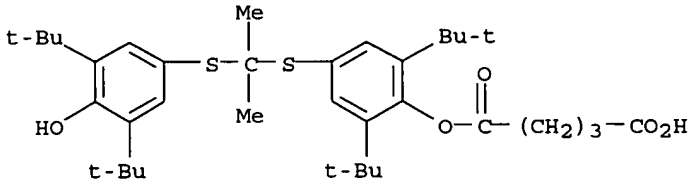
weight%, probucol disuccinate 18 weight%, and probucol 33 weight%.

IT **216167-82-7P**, Probucol monosuccinate **216167-94-1P**
RL: **IMF (Industrial manufacture)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**
(claimed compound; preparation of esters of probucol and derivs. thereof using acid anhydrides in the presence of DBU or DBN)

RN 216167-82-7 HCAPLUS
CN Butanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)

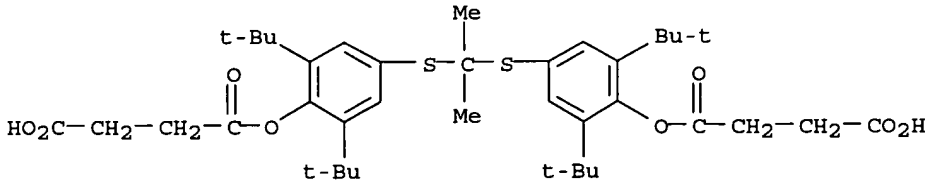


RN 216167-94-1 HCAPLUS
CN Pentanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)



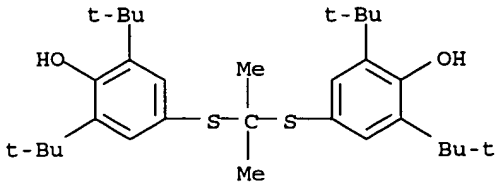
IT **216168-45-5P**, Probucol disuccinate
RL: **IMF (Industrial manufacture)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of esters of probucol and derivs. thereof using acid anhydrides in the presence of DBU or DBN)

RN 216168-45-5 HCAPLUS
CN Butanedioic acid, (1-methylethylidene)bis[thio[2,6-bis(1,1-dimethylethyl)-4,1-phenylene]] ester (9CI) (CA INDEX NAME)



IT **23288-49-5**, **Probucol**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of esters of **probucol** and derivs. thereof using acid anhydrides in the presence of DBU or DBN)

RN 23288-49-5 HCAPLUS
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L34 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1103383 HCAPLUS
DN 143:392944
TI Process for preparation of probucol derivatives
IN **Jass, Paul Alan; Douglas, Jason Scott**
PA USA
SO U.S. Pat. Appl. Publ., 5 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US2005228192	A1	20051013	2004US-0821426	20040409 <--
WO2005102985	A1	20051103	2004WO-US21336	20040702 <--

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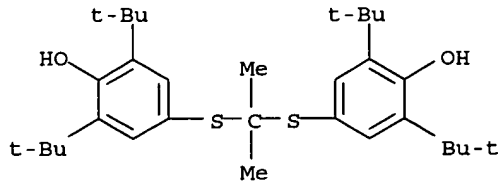
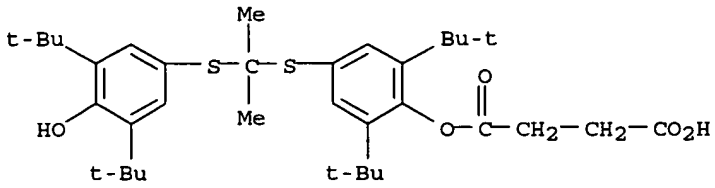
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI 2004US-0821426 A 20040409 <--
OS MARPAT 143:392944
AB A method is described for the preparation of polymorphic forms of water-soluble derivs. of probucol compds. (Markush structure is given). Probucol was reacted with succinic anhydride to obtain mono-, and di-succinylated probucol derivs. which were separated and purified.
IT **23288-49-5, Probucol**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(process for preparation of **probucol** derivs.)
RN 23288-49-5 HCAPLUS
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-
(9CI) (CA INDEX NAME)

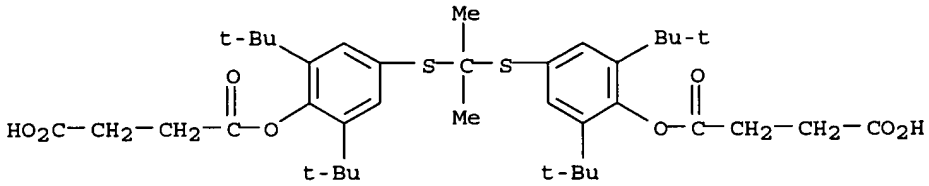


IT **216167-82-7P 216168-45-5P**
RL: **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(process for preparation of probucol derivs.)
RN 216167-82-7 HCAPLUS
CN Butanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-

hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)



RN 216168-45-5 HCAPLUS
CN Butanedioic acid, (1-methylethylidene)bis[thio[2,6-bis(1,1-dimethylethyl)-4,1-phenylene]] ester (9CI) (CA INDEX NAME)



L34 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:610066 HCAPLUS
DN 141:156929
TI Process of preparing esters and ethers of probucol and derivatives thereof
IN Weingarten, M. David; Sikorski, James A.
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 136 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2004062622	A2	20040729	2004WO-US00805	20040113
	WO2004062622	A3	20041202		
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	CA---2512980	AA	20040729	2004CA-2512980	20040113
	US2004204485	A1	20041014	2004US-0757664	20040113
	EP---1594824	A2	20051116	2004EP-0701812	20040113
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR2004006738	A	20051220	2004BR-0006738	20040113
	CN---1759084	A	20060412	CN 2004-80006265	20040113
PRAI	2003US-439665P	P	20030113		
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OS MARPAT 141:156929
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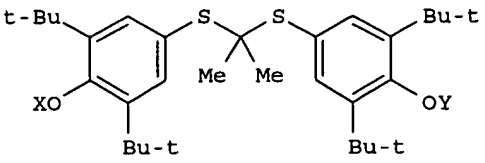


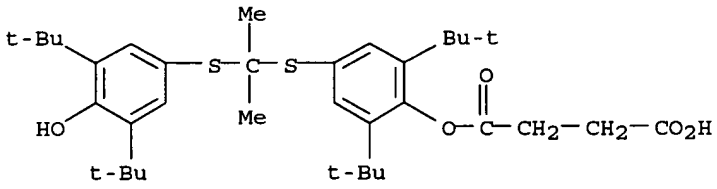
I

AB Probucol or a probucol derivative can be efficiently converted to a monoester or monoether of probucol (I) [wherein R1-R4 = H, (un)substituted alkyl; R5, R6 = each (un)substituted alkyl, alkenyl, or aryl; or R5 and R6 can come together to form a carbocyclic ring; X, Y = H, optionally substituted (un)saturated acyl having from 1 to 18 carbon atoms each optionally containing a polar or charged functionality] by reacting the free hydroxyl-containing probucol or a derivative thereof (by which is meant a probucol compound with at least one substituent that is different from that on the parent probucol mol. but which maintains the two free hydroxyl groups), i.e., I (X = Y = H; R1-R6 = same as above), with a Grignard reagent or a lithium reagent that produces a magnesium bromide or lithium salt of probucol or the probucol derivative The probucol compound anion is then reacted with an ester or ether forming compound Thus, in a dry 25 mL 3-neck round bottom flask fitted with a reflux condenser, nitrogen inlet, thermocouple and stir bar was charged probucol (0.25 g, 0.48 mmol) followed by 2.5 mL anhydrous toluene and then isopropylmagnesium chloride (0.51 mL, 2.0 M in THF) in 1 portion. The reaction was brought to room temperature and then succinic anhydride (0.25 g, 2.5 mmol) was added in 1 portion. After aging for 45 min, the reaction was slowly quenched with 1 N HCl and diluted with EtOAc. The biphasic reaction was then cooled to room temperature and the phases were separated to give an organic layer containing 60% probucol monosuccinate, 13% probucol disuccinate, and 27% probucol according to HPLC anal.

IT **216167-82-7P**, Probucol monosuccinate **216168-45-5P**, Probucol disuccinate
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(preparation of esters and ethers of probucol and its derivs. by treatment of probucol and its derivs. with Grignard reagent or organolithium reagent and then ester or ether forming compound)

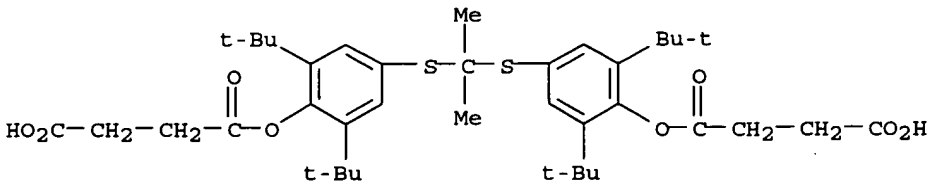
RN 216167-82-7 HCAPLUS

CN Butanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)

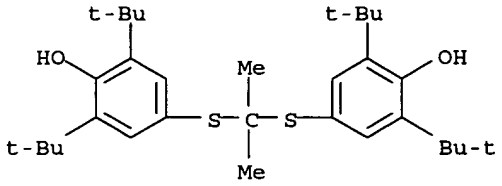


RN 216168-45-5 HCAPLUS

CN Butanedioic acid, (1-methylethylidene)bis[thio[2,6-bis(1,1-dimethylethyl)-4,1-phenylene]] ester (9CI) (CA INDEX NAME)



IT 23288-49-5, Probucol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of esters and ethers of probucol and its derivs. by treatment of probucol and its derivs. with Grignard reagent or organolithium reagent and then ester or ether forming compound)
RN 23288-49-5 HCAPLUS
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L34 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:60447 HCAPLUS
DN 140:105287
TI Preparation of meglumine salts of poorly soluble probucol esters and ethers for treatment of inflammatory disorders
IN Meng, Charles Q.
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO2004007423	A1	20040122	2003WO-US21781	20030714
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA---2492433	AA	20040122	2003CA-2492433	20030714
AU2003253887	A1	20040202	2003AU-0253887	20030714
US2004082807	A1	20040429	2003US-0619268	20030714
US---6960683	B2	20051101		
EP---1551791	A1	20050713	2003EP-0764540	20030714
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JP2005533113	T2	20051104	2004JP-0521714	20030714
US2006079713	A1	20060413	2005US-0263821	20051101
PRAI 2002US-395573P	P	20020712		
2003US-0619267	A1	20030714		
2003WO-US21781	W	20030714		

OS MARPAT 140:105287
AB Organic amine salts of probucol esters and ethers, especially meglumine salts of compds. such as 4-[4-[[1-[[3,5-bis-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenoxy]butanoic acid (I), are for the treatment of inflammatory disorders, e.g., arthritis, asthma, multiple sclerosis, psoriasis, etc. Thus, a probucol ester salt was prepared by the treatment

of I with meglumine in in THF solution Th effectiveness of the compound in the treatment of inflammatory disorders was demonstrated.

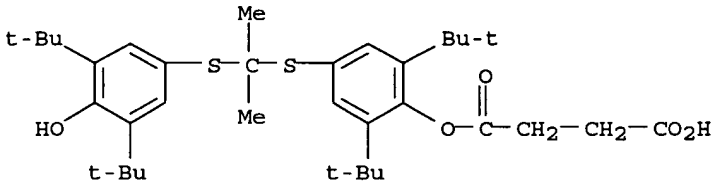
IT **646518-18-5P**
RL: PAC (Pharmacological activity); PRP (Properties); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of meglumine salts of poorly soluble probucol esters and ethers for treatment of inflammatory disorders)

RN 646518-18-5 HCAPLUS

CN D-Glucitol, 1-deoxy-1-(methylamino)-, 4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl butanedioate (salt) (9CI) (CA INDEX NAME)

CM 1

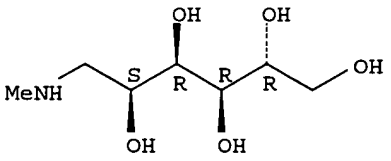
CRN 216167-82-7
CMF C35 H52 O5 S2



CM 2

CRN 6284-40-8
CMF C7 H17 N O5

Absolute stereochemistry.



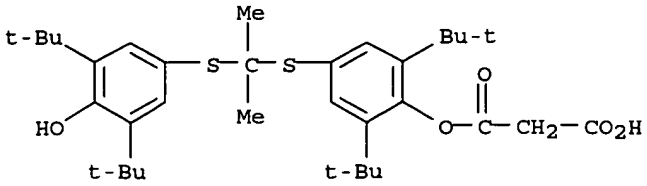
IT **646518-21-0P 646518-22-1P 646518-23-2P**
646518-25-4P
RL: **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of meglumine salts of poorly soluble probucol esters and ethers for treatment of inflammatory disorders)

RN 646518-21-0 HCAPLUS

CN D-Glucitol, 1-deoxy-1-(methylamino)-, 4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl propanedioate (salt) (9CI) (CA INDEX NAME)

CM 1

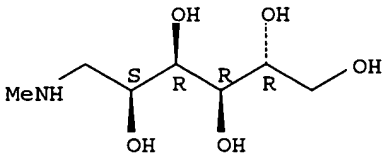
CRN 524005-22-9
CMF C34 H50 O5 S2



CM 2

CRN 6284-40-8
CMF C7 H17 N O5

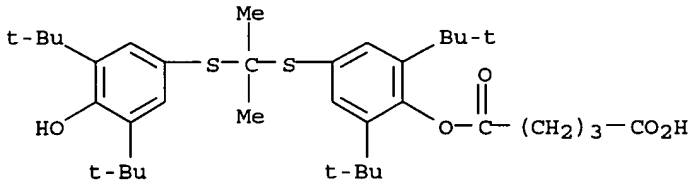
Absolute stereochemistry.



RN 646518-22-1 HCAPLUS
CN D-Glucitol, 1-deoxy-1-(methylamino)-, 4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl pentanedioate (salt) (9CI) (CA INDEX NAME)

CM 1

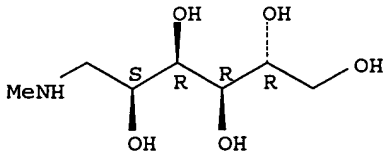
CRN 216167-94-1
CMF C36 H54 O5 S2



CM 2

CRN 6284-40-8
CMF C7 H17 N O5

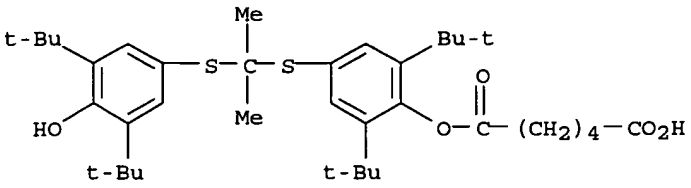
Absolute stereochemistry.



RN 646518-23-2 HCAPLUS
CN D-Glucitol, 1-deoxy-1-(methylamino)-, 4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl hexanedioate (salt) (9CI) (CA INDEX NAME)

CM 1

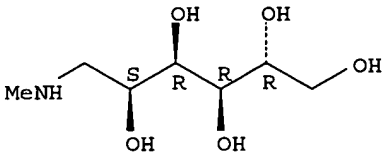
CRN 219773-26-9
CMF C37 H56 O5 S2



CM 2

CRN 6284-40-8
CMF C7 H17 N O5

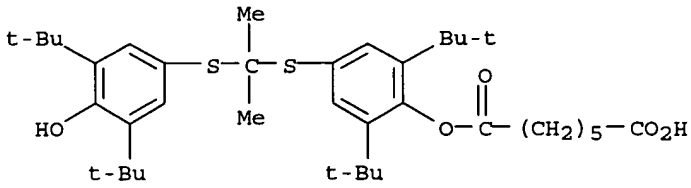
Absolute stereochemistry.



RN 646518-25-4 HCAPLUS
CN D-Glucitol, 1-deoxy-1-(methylamino)-, 4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl heptanedioate (salt) (9CI) (CA INDEX NAME)

CM 1

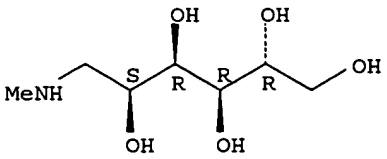
CRN 646518-24-3
CMF C38 H58 O5 S2



CM 2

CRN 6284-40-8
CMF C7 H17 N O5

Absolute stereochemistry.



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Somers	2000			US---6147250 A	HCAPLUS

L34 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:376540 HCAPLUS
DN 138:362685
TI Methods of reversing and preventing cardiovascular pathologies
IN Glass, Mitchell; Tardif, Jean-Claude
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2003039352	A2	20030515	2002WO-US37274	20021112
	WO2003039352	A3	20031023		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA---2466081	AA	20030515	2002CA-2466081	20021112
	US2003181520	A1	20030925	2002US-0293399	20021112
	EP---1451138	A2	20040901	2002EP-0789782	20021112
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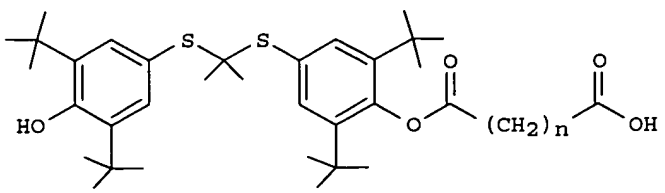
	CN---1612855	A	20050504	2002CN-0826999	20021112
	JP2006506314	T2	20060223	2003JP-0541450	20021112
PRAI	2001US-347778P	P	20011109		
	2002WO-US37274	W	20021112		

OS MARPAT 138:362685
GI



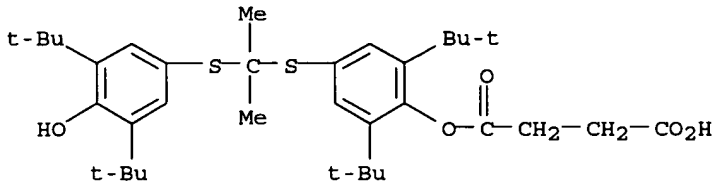
I

AB The present invention is a method to increase the lumen diameter of a coronary blood vessel, that includes administering a lumen increasing amount of a compound of the formula I wherein x is defined as an integer between 1 and 4; or a pharmaceutically acceptable salt, ester or prodrug thereof.

IT **216167-82-7P**
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(methods of reversing and preventing cardiovascular pathol. associated with decrease in lumen diameter of coronary blood vessel in combination with other agents without prolongation of the heart QTc interval)

RN 216167-82-7 HCAPLUS

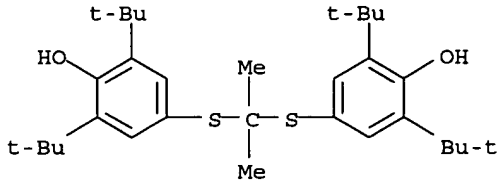
CN Butanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)



IT **23288-49-5, Probucol**
RL: PAC (Pharmacological activity); **RCT (Reactant)**; THU (Therapeutic use); BIOL (Biological study); **RACT (Reactant or reagent)**; USES (Uses)
(methods of reversing and preventing cardiovascular pathol. associated with decrease in lumen diameter of coronary blood vessel in combination with other agents without prolongation of the heart QTc interval)

RN 23288-49-5 HCAPLUS

CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L34 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:849415 HCAPLUS

DN 137:333157

TI Probucol monoesters for increasing levels and improving functionality of plasma HDL cholesterol

IN Luchoomun, Jayraz; Saxena, Uday; Sundell, Cynthia L.; Sikorski, James A.

PA Atherogenics, Inc., USA

SO PCT Int. Appl., 161 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2002087556	A2	20021107	2002WO-US12678	20020411
	WO2002087556	A3	20030206		
	WO2002087556	C2	20030320		

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA---2444429	AA	20021107	2002CA-2444429	20020411
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US2003064967	A1	20030403	2002US-0122516	20020411
EP---1385501	A2	20040204	2002EP-0749523	20020411
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JP2005508850	T2	20050407	2002JP-0584902	20020411
US2005065121	A1	20050324	2004US-0977752	20041029
PRAI 2001US-283376P	P	20010411		
2001US-345025P	P	20011109		
2002US-0122516	A1	20020411		
2002WO-US12678	W	20020411		

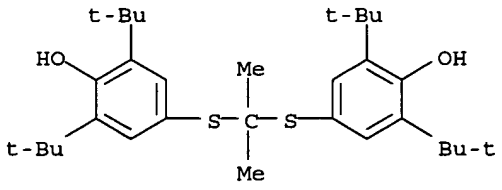
OS MARPAT 137:333157

AB It has been discovered that certain selected probucol monoesters, and their pharmaceutically acceptable salts or prodrugs, are useful for increasing circulating HDL cholesterol. These compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b) increasing HDL-particle affinity for hepatic cell surface receptors, or (c) increasing the half-life of apoAI-HDL. The pharmaceutical compns. comprise probucol monoesters alone or in combination with other agents, e.g, statins, IBAT inhibitors, MTP inhibitors, cholesterol absorption inhibitors, phytosterols, CETP inhibitors, fibric acid derivs., and antihypertensive agents. For example, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]ester of pentanedioic acid, prepared from probucol and glutaric anhydride, elevated HDLc in hyperlipidemic hamster by 22% (average of 3 expts., range 5-44%), compared to untreated controls after 2 wk treatment at a dose of 150 mg/kg/day. LDLc was reduced by 29% on average, VLDL cholesterol by 42%, and triglycerides by 24%, compared to controls. The compound was well tolerated and all animals gained weight

IT **23288-49-5, Probucol**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(preparation of **probucol** monoesters for increasing levels and improving functionality of plasma HDL cholesterol)

RN 23288-49-5 HCAPLUS

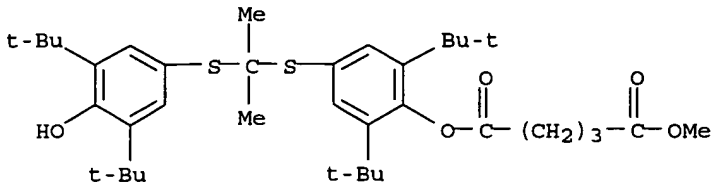
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



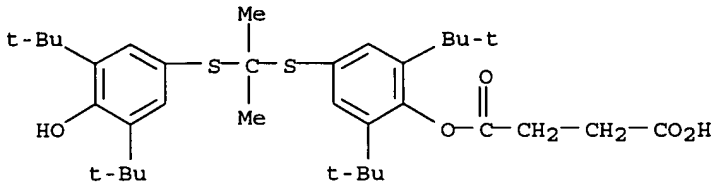
IT **216167-80-5P 216167-82-7P 216167-94-1P**
RL: **SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)**
(preparation of probucol monoesters for increasing levels and improving functionality of plasma HDL cholesterol)

RN 216167-80-5 HCAPLUS

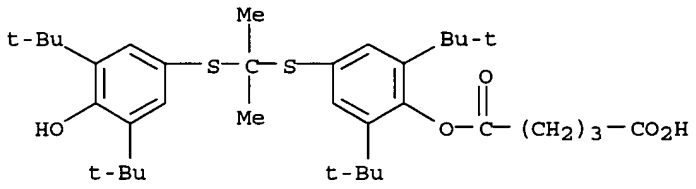
CN Pentanedioic acid, 4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl methyl ester (9CI) (CA INDEX NAME)



RN 216167-82-7 HCAPLUS
CN Butanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)



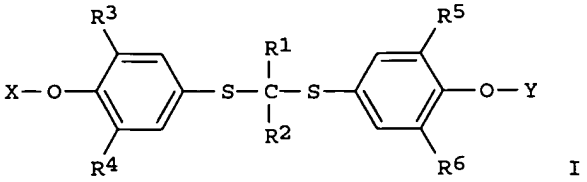
RN 216167-94-1 HCAPLUS
CN Pentanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)



L34 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:863541 HCAPLUS
DN 135:371524
TI Process for preparing water-soluble probucol acyl esters for use as food antioxidants
IN **Jass, Paul Alan**
PA Salsbury Chemicals, Inc., USA
SO U.S., 5 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US---6323359	B1	20011127	2000US-0562657	20000502

PRAI 2000US-0562657 20000502
OS CASREACT 135:371524; MARPAT 135:371524
GI



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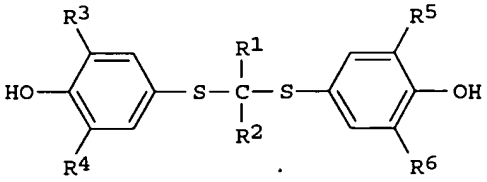


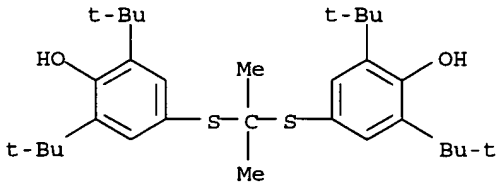
II

AB Water-soluble derivs. of probucol compds. [I; R1, R2 = alkyl, alkenyl, aryl; R3-R6 = C1-4 alkyl; X, Y = H, (un)saturated (un)substituted C1-8 acyl] (e.g., probucol mono- and disuccinate), useful as food antioxidants, are prepared by the reaction of a solution of a probucol compound (II) with an alkali metal hydroxide, alkali metal alkoxide (e.g., potassium tert-butoxide), alkylammonium alkoxide, alkylammonium hydroxide and mixts. forming an ammonium or an alkali metal salt of the probucol compound and reacting the salt with a carboxylic acid anhydride selected from succinic anhydride, glutaric anhydride, adipic anhydride, suberic anhydride, sebacic anhydride, azelaic anhydride, phthalic anhydride, and maleic anhydride.

IT **23288-49-5, Probucol**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(in a process for preparing water-soluble **probucol** acyl esters for use as food antioxidants)

RN 23288-49-5 HCAPLUS

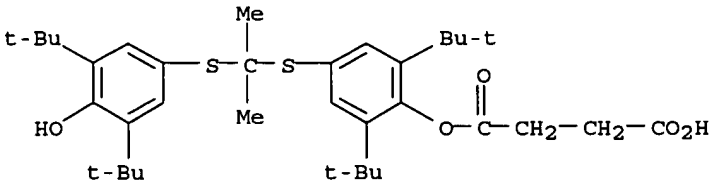
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



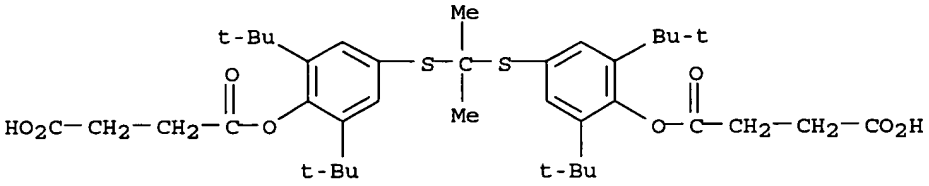
IT **216167-82-7P 216168-45-5P**
RL: FFD (Food or feed use); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(process for preparing water-soluble probucol acyl esters for use as food antioxidants)

RN 216167-82-7 HCAPLUS

CN Butanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)



RN 216168-45-5 HCAPLUS
CN Butanedioic acid, (1-methylethylidene)bis[thio[2,6-bis(1,1-dimethylethyl)-4,1-phenylene]] ester (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1973			FR---2140769	HCAPLUS
Anon	1993			WO---9321914	HCAPLUS
Anon	1998			WO---9851662	HCAPLUS
Anon	1999			WO---9901118	HCAPLUS

L34 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:761875 HCAPLUS
DN 130:13646
TI Preparation of phenolic compounds for the inhibition of the expression of VCAM-1
IN Medford, Russell M.; Somers, Patricia K.; Hoong, Lee K.; Meng, Charles Q.
PA Atherogenics, Inc., USA
SO PCT Int. Appl., 109 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO---9851662	A2	19981119	1998WO-US09781	19980514
	WO---9851662	A3	20000302		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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	CA---2428130	AA	19981119	1998CA-2428130	19980514
	AU---9874851	A1	19981208	1998AU-0074851	19980514
	AU----750041	B2	20020711		
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	EP----994853	A2	20000426	1998EP-0922264	19980514
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	TR---9902803	T2	20000721	1999TR-9902803	19980514
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	CN---1496740	A	20040519	CN 2003-2003153067	19980514
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	NZ----528906	A	20050624	1998NZ-0528906	19980514
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	EP---1607089	A1	20051221	2005EP-0076752	19980514
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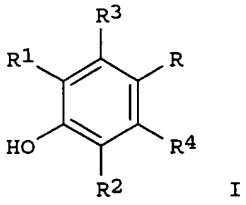
	NO2003002254	A	20000110	2003NO-0002254	20030519
	US2005090487	A1	20050428	2003US-0647766	20030825
PRAI	1997US-047020P	P	19970514		
	1998EP-0922264	A3	19980514		
	1998EP-0923411	A3	19980514		
	1998IL-0132797	A3	19980514		
	1998US-0079213	A1	19980514		
	1998WO-US09781	W	19980514		
	1999US-0370046	A1	19990806		
	2002US-0060734	A1	20020130		

OS MARPAT 130:13646

GI



I

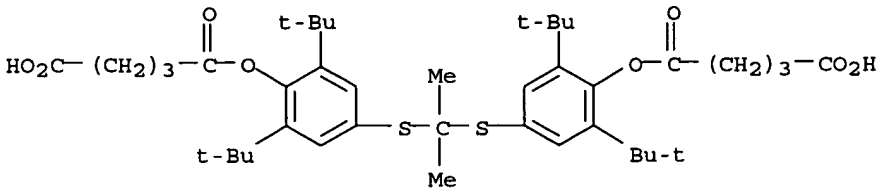
AB Title compds. [e.g., I; R = Z1Z2R5; R1,R2 = (un)substituted (cyclo)alkyl, -(hetero)aryl, etc.; R3,R4 = any group that does not otherwise adversely affect (sic) the desired properties of the mol. including H, halogen, or R1 (sic); R5 = (di)(alkyl)amino, alkyl, alkoxy(carbonyl), (hetero)aryl, etc.; Z1 = O SO0-2, NH, CH2; Z2 = bond, alkylene(oxy) aryleneoxy, etc.] were prepared Thus, 4-(BrCH2)C6H4CH2CO2H was thioetherified by 4-mercapto-2,6-di-tert-butylphenol to give I [R = SCH2C6H4(CH2CO2H)-4, R1 = R2 = CMe3, R3 = R4 = H]. Data for biol. activity of I were given.

IT **141896-35-7P 216167-80-5P 216167-82-7P 216167-94-1P 216168-42-2P 216168-43-3P 216168-45-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**;
USES (Uses)
(preparation of phenolic compds. for the inhibition of the expression of

VCAM-1)

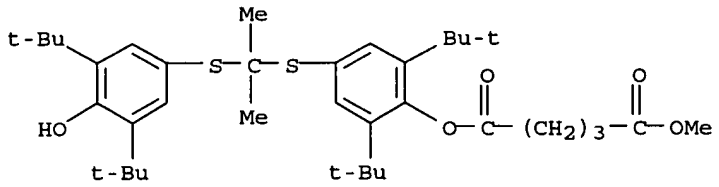
RN 141896-35-7 HCAPLUS

CN Pentanedioic acid, (1-methylethylidene)bis[thio[2,6-bis(1,1-dimethylethyl)-4,1-phenylene]] ester (9CI) (CA INDEX NAME)



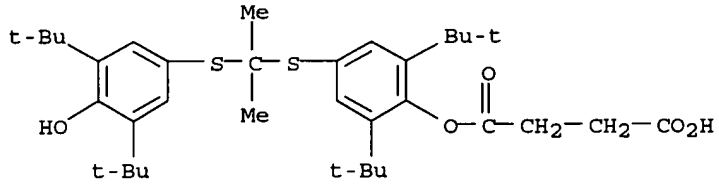
RN 216167-80-5 HCAPLUS

CN Pentanedioic acid, 4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl methyl ester (9CI) (CA INDEX NAME)



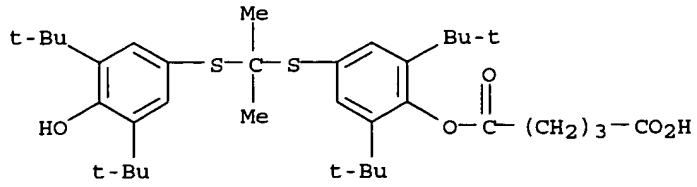
RN 216167-82-7 HCAPLUS

CN Butanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)



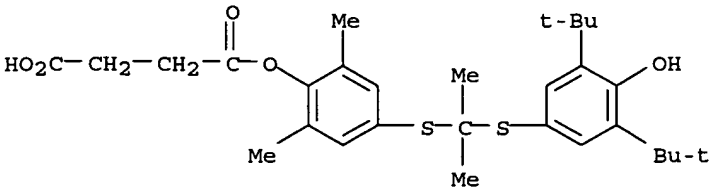
RN 216167-94-1 HCAPLUS

CN Pentanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)

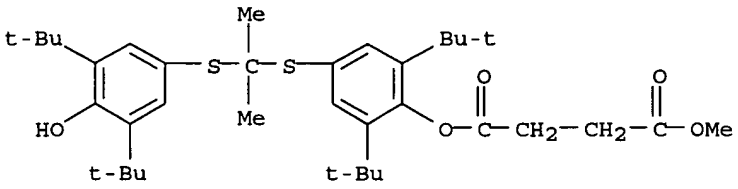


RN 216168-42-2 HCAPLUS

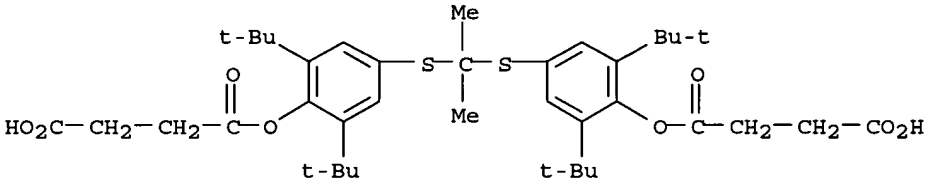
CN Butanedioic acid, mono[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-dimethylphenyl] ester (9CI) (CA INDEX NAME)



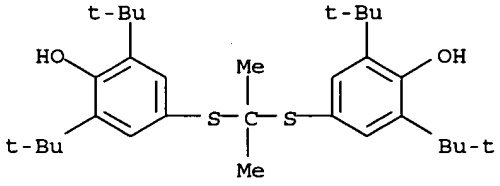
RN 216168-43-3 HCAPLUS
CN Butanedioic acid, 4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl methyl ester (9CI) (CA INDEX NAME)



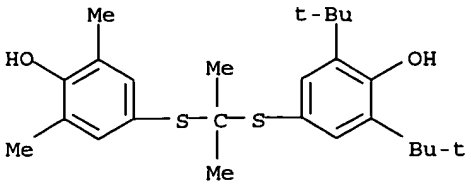
RN 216168-45-5 HCAPLUS
CN Butanedioic acid, (1-methylethylidene)bis[thio[2,6-bis(1,1-dimethylethyl)-4,1-phenylene]] ester (9CI) (CA INDEX NAME)



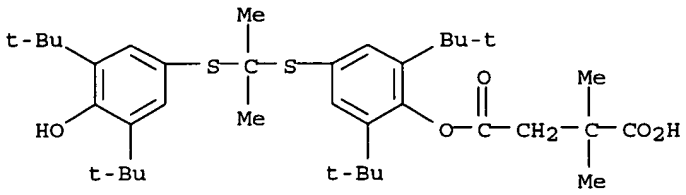
IT **23288-49-5, Probucol 216168-64-8**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(preparation of phenolic compds. for the inhibition of the expression of VCAM-1)
RN 23288-49-5 HCAPLUS
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 216168-64-8 HCAPLUS
CN Phenol, 2,6-bis(1,1-dimethylethyl)-4-[[1-[(4-hydroxy-3,5-dimethylphenyl)thio]-1-methylethyl]thio]- (9CI) (CA INDEX NAME)



IT 216168-63-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of phenolic compds. for the inhibition of the expression of VCAM-1)
RN 216168-63-7 HCAPLUS
CN Butanedioic acid, 2,2-dimethyl-, 4-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)



L34 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:45968 HCAPLUS
DN 120:45968
TI Soluble derivatives of probucol as LDL antioxidants
IN Parthasarathy, Sampath
PA Regents of the University of California, USA
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO---9321914	A1	19931111	1993WO-US04071	19930430
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US---5262439	A	19931116	1992US-0876557	19920430
	AU---9342254	A1	19931129	1993AU-0042254	19930430
	EP----637959	A1	19950215	1993EP-0910932	19930430
	EP----637959	B1	20020821		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP--07506373	T2	19950713	1993JP-0519534	19930430
	JP---3179494	B2	20010625		
	EP---1161946	A2	20011212	2001EP-0203065	19930430
	EP---1161946	A3	20031210		
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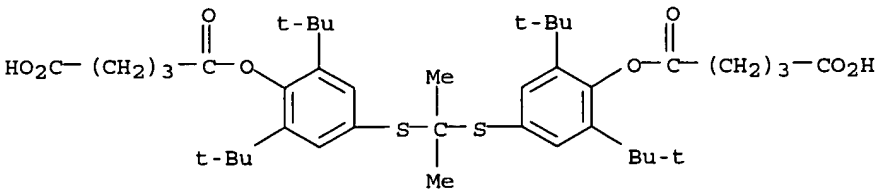
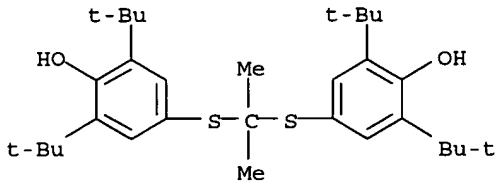
	AT----222490	E	20020915	1993AT-0910932	19930430
	PT----637959	T	20021231	1993PT-0910932	19930430
	ES---2181688	T3	20030301	1993ES-0910932	19930430
	CA---2134679	C	20031125	1993CA-2134679	19930430
PRAI	1992US-0876557	A1	19920430		

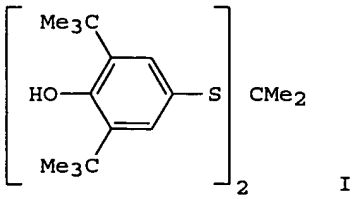
1993EP-0910932 A3 19930430
1993WO-US04071 A 19930430
OS MARPAT 120:45968
AB Water-soluble probucol (I) derivs. are prepared as antioxidants to block oxidative modification of LDL (Markush structure given). Some of these compds. are spontaneously hydrolyzable in biol. milieus. I was treated with glutaric anhydride in the presence of 4-dimethyl-aminopyridine at 130° for 24 hs to obtain I.diglutarate (II). Mouse peritoneal macrophages were treated with 30 μM II and incubated with labeled LDL for 24h. The rate of LDL oxidation by macrophage was 1.4 as compared to 5.5 μg/5h/mg cell protein for the controls.
IT **141896-35-7P**
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(preparation of, as LDL antioxidants)
RN 141896-35-7 HCAPLUS
CN Pentanedioic acid, (1-methylethylidene)bis[thio[2,6-bis(1,1-dimethylethyl)-4,1-phenylene]] ester (9CI) (CA INDEX NAME)



IT **23288-49-5, Probucol**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with glutaric anhydride)
RN 23288-49-5 HCAPLUS
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)



L34 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1992:420197 HCAPLUS
DN 117:20197
TI Evidence for an additional intracellular site of action of probucol in the prevention of oxidative modification of low density lipoprotein: use of a new water-soluble probucol derivative
AU Parthasarathy, Sampath
CS Dep. Med., Univ. California, San Diego, La Jolla, CA, 92093-0613, USA
SO Journal of Clinical Investigation (1992), 89(5), 1618-21
CODEN: JCINAO; ISSN: 0021-9738
DT Journal
LA English
GI



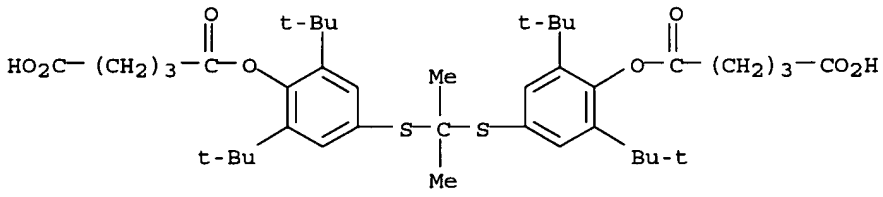
I

AB Oxidative modification of low-d. lipoprotein (LDL) renders it more atherogenic. Probucol (I) a highly nonpolar antioxidant, is transported in lipoproteins, including LDL, and inhibits oxidative modification of LDL in vitro. The ability of I to inhibit atherogenesis in the LDL receptor-deficient rabbit has been attributed to its antioxidant effect. A new water-soluble analog of I (its diglutarate ester) was prepared and is very effective in preventing cell-induced LDL oxidation The polar I derivative, diglutaryl probucol, is efficiently taken up by endothelial cells and macrophages in culture and is hydrolyzed to release the active antioxidant, I. The treated cells, after thorough washing, show a marked decrease in their capacity to oxidize LDL during a subsequent incubation. At high concns. of the derivative, the cells also released free probucol into the medium. Thus, the effectiveness of I in vivo may be related both to its presence in LDL, acting as a nonspecific antioxidant, and to an addnl. ability to inhibit cell-mediated oxidation of LDL by virtue of its uptake into cells.

IT **141896-35-7P**
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(preparation and oxidative modification of low d. lipoproteins prevention by)

RN 141896-35-7 HCAPLUS

CN Pentanedioic acid, (1-methylethylidene)bis[thio[2,6-bis(1,1-dimethylethyl)-4,1-phenylene]] ester (9CI) (CA INDEX NAME)



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FILE 'HCAPLUS' ENTERED AT 10:18:14 ON 07 JUN 2006
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E JASS P/AU
L2 14 E4-6
E DOUGLAS J/AU
E DOUGLAS JASON/AU
L3 1 E4

FILE 'REGISTRY' ENTERED AT 10:19:31 ON 07 JUN 2006

FILE 'HCAPLUS' ENTERED AT 10:19:31 ON 07 JUN 2006
L4 TRA L1 1- RN : 5 TERMS

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L5             5 SEA L4
L6             3 L5 AND S/ELS
L7               STR
L8             4 L7
L9            88 L7 FULL
                 SAV TEM L9 VAL426F0/A
L10              STR L7
L11            3 L10 SAM SUB=L9
L12           59 L10 FULL SUB=L9
L13           29 L9 NOT L12

     FILE 'HCAPLUS' ENTERED AT 10:30:03 ON 07 JUN 2006
L14         1193 L12
L15           33 L13
L16           10 L15 (L)PREP+NT/RL
L17           10 L14 AND L16
L18           34 L14 (L)RACT+NT/RL
L19            8 L17 AND L18
                 E DOUGLAS J/AU
L20           55 E3,E21-22
L21        38115 S L4
L22        38115 S L4
L23            2 L19 AND L1-3
L24            0 L19 AND L20
L25            6 L19 NOT L23
L26            6 L25 AND (PY<=2004 OR PRY<=2004 OR AY<=2004)
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L27        64082 E3-170
                 E E3+ALL
L28       907607 E4+NT
L29            0 L26 AND L27-28
L30         1502 PROBUCOL
L31           10 L30 (L)RACT+NT/RL AND L16
L32            2 L31 AND L1-3
L33            0 L31 AND L20
L34           10 L23,L25,L31-32

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